

REMARKS

The present response accompanies a Request for Continued Examination (RCE). Claims 1-3, 5-15, and 20-22 are currently pending in the present application. Support for the amendments may be found throughout the specification, such as paragraphs [0031] and [0042], for example. No new matter has been added by way of the amendments.

Claim Rejections – 35 U.S.C. § 102

Claims 1-5, 8, 9, 21, and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by “Random Number” by Duckworth (“Duckworth”). Without conceding the merits of the rejection, Applicants have amended independent claims 1 and 21 to further clarify the claimed subject matter.

Claim 1 has been amended to recite, in part, generating first synthetic data and determining a position of an item of data in the first synthetic data. A first seed is determined based upon a position of the item of data. The first seed is used as input to a deterministic data generation module for regenerating at least the item of data at a first numerical position in the sequence of the first synthetic data. The first seed is within a first range allowed by a parameter of the data generation module. The parameter and the first seed are configured to cause the data generation module to generation the first synthetic data. The data generation module outputs a first random number using the first seed.

Claim 1 also recites determining a second seed as a third input to the data generation module and corresponding to a second numerical position in a sequence of second synthetic data. The second seed is within a second range allowed by a parameter of the data generation module. ***The second range is different than the first range.*** The parameter and the second seed are configured to cause the data generation module to generate the second synthetic data. ***The first and second synthetic data are different.***

For example, a generator function can be described as having a modulus m and a multiplier a (See paragraph [0032] of the present application.). An integer sequence z_1, z_2, z_3, \dots may be generated, and a generating function may be defined for a range z in $1, 2, \dots, m-1$ as:

$$f(z) = az \bmod m.$$

The function may generate all values between the range 1 and m-1 (*See id.* at paragraph [0033] of the present application.). The value z may be referred to as a seed (*Id.*).

Referring to paragraph [0042] of the present application, a seed value may be set by advancing the random number generator sequence by a certain number of steps from a selected seed. For example, for a selected seed of z, the generator can be advanced by 100 increments per customer or z_{100n} (*See* paragraph [0042] of the present application.). In this case, the seed for customer 1 would be a z_{100} and for customer 99 would be z_{9900} (*See id.*). This can be advantageous, for example, because differing synthetic data from the same data sets may be generated for different customers. The different synthetic data can be generated because different parameters and seeds are used for generating the data.

Duckworth does not disclose generating different synthetic data from the same data by use of different parameters and seeds as recited by claim 1. Duckworth teaches using a seed. However, Duckworth teaches using the seed to indicate a starting point of a random sequence of data. Duckworth teaches that the seed may be replaced with another seed, but the synthetic data generated by using the seeds will be the same. The differing seeds merely provide a different starting point for the sequence. For at least these reasons, Applicants respectfully submit that Duckworth does not disclose or suggest each and every feature recited by amended claim 1.

Similar to claim 1, claim 21 recites first and second sets of random numbers. The sets of random numbers are different. Claim 21 also recites generating the random numbers by different seed values and different parameters. Accordingly, for reasons similar to those provided for claim 1, Applicants respectfully submit that Duckworth does not disclose or suggest each and every feature recited by amended claim 21.

For at least the foregoing reasons, Applicants respectfully submit that Duckworth does not disclose the aforementioned features of claims 1 and 21. Claims 2-5, 8, 9, and 22 depend upon one of claims 1 and 21. Claims 4 and 22 have been canceled. Accordingly, Applicants respectfully submit that the rejection of claims 1-5, 8, 9, 21, and 22 under 35 U.S.C. § 102(b) should be withdrawn.

Claim Rejections – 35 U.S.C. § 103

Claims 6, 7, 10-15, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Duckworth in view of “Quickly Generating Billion-Record Synthetic Databases” by Gray et al. (“Gray”). Without conceding the merits of the rejection, Applicants have amended claims 1, 11, and 20 to further clarify the claimed subject matter.

For the aforementioned reasons, Duckworth does not disclose or suggest the claim 1 features of generating different synthetic data from the same data by use of different parameters and seeds. Gray is directed to the generation of random numbers; however, Gray does not disclose or suggest the claim 1 features of generating different synthetic data from the same data by use of different parameters and seeds. Accordingly, Applicants respectfully submit that Duckworth and Gray, either alone or in combination do not disclose or suggest these features.

Similar to claim 1, claim 11 has been amended to recite, in part, data sets that each differ by use of different seeds and parameters for generating the data sets. For the foregoing reasons, Applicants respectfully submit that Duckworth and Gray, either alone or in combination do not disclose or suggest these features.

Similar to claim 1, claim 20 has been amended to recite, in part, data sets that each differ by use of different seeds and parameters for generating the data sets. For the foregoing reasons, Applicants respectfully submit that Duckworth and Gray, either alone or in combination do not disclose or suggest these features.

For at least the foregoing reasons, Applicants respectfully submit that Duckworth and Gray, either alone or in combination, do not disclose or suggest the aforementioned features of claims 1, 11, and 20. Claims 6, 7, 10, and 12-15 depend upon one of claims 1 and 11. Accordingly, Applicants respectfully submit that the rejection of claims 6, 7, 10-15, and 20 under 35 U.S.C. § 103(a) should be withdrawn.

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CONCLUSION

By the remarks and the amendments provided herein, the Applicant respectfully submits that the Office Action mailed December 1, 2009 has been traversed and that the application is in condition for allowance. If the Examiner has any concerns regarding the response provided herein, or wishes to discuss the response further, the Examiner is invited to contact the undersigned attorney.

The Commissioner is hereby authorized to charge any deficiency or credit any overpayment of the fees associated with this communication to Deposit Account No. 23-3050.

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